



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

*Frank O'Bannon*  
Governor

*Lori F. Kaplan*  
Commissioner

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Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.IN.gov/idem](http://www.IN.gov/idem)

## **FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY and Gary Department of Environmental Affairs**

**Rieth Riley Construction Co., Inc.**  
**301 North Cline Avenue**  
**Gary, Indiana 46406**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 089-15623-03226	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 7, 2002  Expiration Date: November 7, 2007

## TABLE OF CONTENTS

<b>SECTION A</b>	<b>SOURCE SUMMARY</b> . . . . .	<b>5</b>
A.1	General Information [326 IAC 2-8-3(b)]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.3	Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]	
A.4	FESOP Applicability [326 IAC 2-8-2]	
A.5	Prior Permits Superseded [326 IAC 2-1.1-9.5]	
<b>SECTION B</b>	<b>GENERAL CONDITIONS</b>	
B.1	Permit No Defense [IC 13]	
B.2	Definitions [326 IAC 2-8-1]	
B.3	Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5]	
B.4	Enforceability [326 IAC 2-8-6]	
B.5	Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]	
B.6	Severability [326 IAC 2-8-4(4)]	
B.7	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.8	Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5 (a)(4)]	
B.9	Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.10	Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]	
B.11	Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]	
B.12	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.13	Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]	
B.14	Emergency Provisions [326 IAC 2-8-12]	
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]	
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]	
B.17	Permit Renewal [326 IAC 2-8-3(h)]	
B.18	Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]	
B.19	Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]	
B.20	Permit Revision Requirement [326 IAC 2-8-11.1]	
B.21	Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]	
B.22	Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.23	Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)][326 IAC 2-8-16][326 IAC 2-1.1-7]	
<b>SECTION C</b>	<b>SOURCE OPERATION CONDITIONS</b>	
	<b>Emission Limitations and Standards [326 IAC 2-8-4(1)]</b>	
C.1	Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P] [326 IAC 6-3-2]	
C.2	Overall Source Limit [326 IAC 2-8] [326 IAC 2-2]	
C.3	Opacity [326 IAC 5-1]	
C.4	Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.5	Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]	
C.6	Fugitive Dust Emissions [326 IAC 6-4]	
C.7	Fugitive Dust Emissions [326 IAC 6-1-11.1]	
C.8	Operation of Equipment [326 IAC 2-8-5(a)(4)]	
C.9	Stack Height [326 IAC 1-7]	
C.10	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61 Subpart M]	

**Testing Requirements [326 IAC 2-8-4(3)]**

- C.11 Performance Testing [326 IAC 3-6]

**Compliance Requirements [326 IAC 2-1.1-11]**

- C.12 Compliance Requirements [326 IAC 2-1.1-11]

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

- C.13 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]  
C.14 Monitoring Methods [326 IAC 3] [40 CFR 60][40 CFR 63]  
C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)]  
[326 IAC 2-8-5(1)]

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

- C.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]  
C.17 Compliance Response Plan - Preparation, Implementation, Records, and Reports  
[326 IAC 2-8-4, 5]  
C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4, 5]

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

- C.19 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]  
C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]  
C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

**Stratospheric Ozone Protection**

- C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

**SECTION D.1 FACILITY OPERATION CONDITIONS: Hot-mix asphalt production source**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

- D.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]  
D.1.2 Particulate Matter (PM<sub>10</sub>) [326 IAC 2-8-4] [326 IAC 2-3]  
D.1.3 Particulate Matter (PM) [326 IAC 2-3]  
D.1.4 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.90]  
D.1.5 Particulate Matter (PM) [326 IAC 6-1]  
D.1.6 Nitrogen Oxides (NO<sub>x</sub>) [326 IAC 2-8-4] [326 IAC 2-2] [40 CFR 52.21]  
D.1.7 Volatile Organic Compounds (VOCs) [326 IAC 2-8-4] [326 IAC 2-3]  
D.1.8 Volatile Organic Compounds (VOCs) [326 IAC 8-5-2]  
D.1.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

**Compliance Determination Requirements**

- D.1.10 Testing Requirements [326 IAC 2-8-5(1), (4)] [326 IAC 2-1.1-11]  
D.1.11 VOC Emissions  
D.1.12 Particulate Matter (PM)

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

- D.1.13 Visible Emissions Notations  
D.1.14 Parametric Monitoring  
D.1.15 Baghouse Inspections  
D.1.16 Broken or Failed Bag Detection

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

- D.1.17 Cutback Asphalt Production Rate
- D.1.18 Record Keeping Requirements
- D.1.19 Record Keeping [326 IAC 12] [40 CFR 60.110b, Subpart Kb]
- D.1.20 Reporting Requirements

### **Certification**

Emergency Occurrence Report

### **Monthly Reports**

### **Quarterly Deviation and Compliance Monitoring Report**

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and Gary Department of Environmental Affairs. The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary hot mix asphalt production source.

Authorized Individual:	Asphalt Plant Specialist
Source Address:	301 North Cline Avenue, Gary, Indiana 46406
Mailing Address:	P.O. Box 477, Goshen, Indiana 46527-0477
General Source Phone Number:	574 - 875 - 5183
SIC Code:	2951
County Location:	Lake
Source Location Status:	Severe nonattainment for Ozone, Primary nonattainment for SO <sub>2</sub> , Moderate Nonattainment for PM <sub>10</sub> , Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) drum mixer, constructed in 1998, equipped with a baghouse for PM control and exhausted to Stack SV1, capacity: 600 tons per hour.
- (b) One (1) dryer burner, constructed in 1998, equipped with a low NO<sub>x</sub> burner, firing natural gas as primary fuel, using butane or propane gas as a backup fuel, exhausting to Stack SV1, rated at 200 million British thermal units per hour.
- (c) Two (2) hot oil heaters, firing natural gas as primary fuel, using No. 2 distillate oil and propane gas as backup fuels, exhausting to Stacks SV2 and SV3, capacity: 2.0 and 2.256 million British thermal units per hour, respectively.
- (d) Four (4) tanks, identified as 13A, 13B, 13C and 13D, storing liquid asphalt, each constructed prior to July 23, 1984, exhausting to Stacks SV4, SV5, SV6 and SV7, capacity: 12,500 gallons, each.
- (e) One (1) tank, storing liquid asphalt, constructed in 1998, exhausting to Stack SV8, capacity: 25,000 gallons.
- (f) One (1) tank, storing No. 2 distillate oil, exhausting to Stack SV10, capacity: 10,000 gallons.
- (g) One (1) tank, storing liquid asphalt, constructed in 2002, exhausting to Stack SV11, capacity: 30,000 gallons.

- (h) Cold-mix cutback asphalt production.
- A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]
- 
- This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):
- (a) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (b) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- A.4 FESOP Applicability [326 IAC 2-8-2]
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- This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).
- A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]
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- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
- (1) incorporated as originally stated,
- (2) revised, or
- (3) deleted
- by this permit.
- (b) All previous registrations and permits are superseded by this permit.

## B.1 Permit No Defense [IC 13]

## B.2 Definitions [326 IAC 2-8-1]

B.3 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5]

#### B.4 Enforceability [326 IAC 2-8-6]

- ## B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

**B.6 Severability [326 IAC 2-8-4(4)]**

**B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]**

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]  
[326 IAC 2-8-5(a)(4)]

- Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway  
Gary, Indiana 46402

The submittal by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, and Gary Department of Environmental Affairs within a reasonable time, any information that IDEM, OAQ, and Gary Department of Environmental Affairs may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, and Gary Department of Environmental Affairs copies of records required to be kept by this permit.
- (c) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ and Gary Department of Environmental Affairs may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an



authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway  
Gary, Indiana 46402

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Gary Department of Environmental Affairs on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, and Gary Department of Environmental Affairs may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]**

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- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and

implement Preventive Maintenance Plans (PMPs), including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, and Gary Department of Environmental Affairs upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and Gary Department of Environmental Affairs. IDEM, OAQ, and Gary Department of Environmental Affairs may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or Gary Department of Environmental Affairs makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or Gary Department of Environmental Affairs within a reasonable time.

**B.14 Emergency Provisions [326 IAC 2-8-12]**

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- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ and Gary Department of Environmental Affairs / Northwest Regional Office, within four

(4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)  
or,

Telephone No.: 317-233-5674 (ask for Compliance Section)

Facsimile No.: 317-233-5967

Gary Department of Environmental Affairs: 219-882-3007, facsimile 219-882-3012

Northwest Regional Office: 219-881-6712, facsimile 219-881-6745

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway  
Gary, Indiana 46402

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ and Gary Department of Environmental Affairs, may require that the Preventive

Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

- (f) Failure to notify IDEM, OAQ and Gary Department of Environmental Affairs, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

- (g) Operations may continue during an emergency only if the following conditions are met:
- (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.
- Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway  
Gary, Indiana 46402

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

Rieth Riley Construction Co., Inc.  
Gary, Indiana  
Permit Reviewer: EAL/MES

Page 15 of 52  
OP No. F 089-15623-03226

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]**

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ or Gary Department of Environmental Affairs determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ or Gary Department of Environmental Affairs, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ or Gary Department of Environmental Affairs, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ or Gary Department of Environmental Affairs, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and Gary Department of Environmental Affairs and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway



Gary, Indiana 46402

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Gary Department of Environmental Affairs on or before the date it is due.

(2) If IDEM, OAQ and Gary Department of Environmental Affairs, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ and Gary Department of Environmental Affairs takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ and Gary Department of Environmental Affairs, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway  
Gary, Indiana 46402

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the

request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.19 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]**

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- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway  
Gary, Indiana 46402

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ and Gary Department of Environmental Affairs, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) **Emission Trades [326 IAC 2-8-15(c)]**  
The Permittee may trade increases and decreases in emissions in the source, where the

applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

- (c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

**B.20 Permit Revision Requirement [326 IAC 2-8-11.1]**

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A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

**B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]**

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Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, and Gary Department of Environmental Affairs U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

**B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]**

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- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway

Gary, Indiana 46402

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233- 4320 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

**SECTION C**

**SOURCE OPERATION CONDITIONS**

Entire Source
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**Emissions Limitations and Standards [326 IAC 2-8-4(1)]**

**C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P] [326 IAC 6-3-2]**

- (a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

**C.2 Overall Source Limit [326 IAC 2-8]**

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
  - (1) The potential to emit volatile organic compounds (VOCs) from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);
  - (2) The potential to emit any regulated pollutant from the entire source, except particulate matter (PM) and volatile organic compounds (VOCs), shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period;
  - (3) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
  - (4) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-3 (Emission Offset), potential to emit particulate matter (PM) from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

Rieth Riley Construction Co., Inc.  
Gary, Indiana  
Permit Reviewer: EAL/MES

Page 23 of 52  
OP No. F 089-15623-03226

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Fugitive Dust Emissions [326 IAC 6-1-11.1]

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).



- (h) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The  $PM_{10}$  emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on September 4, 1997. The plan consists of:

- (a) adequate wet suppression of dust from unpaved roadways on an "as needed" basis;
- (b) adequate wet suppression of dust from aggregate storage piles on an "as needed" basis.

C.8 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.9 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.10 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.

- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway  
Gary, Indiana 46402

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Indiana Accredited Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

#### **Testing Requirements [326 IAC 2-8-4(3)]**

##### **C.11 Performance Testing [326 IAC 3-6]**

- 
- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

Rieth Riley Construction Co., Inc.  
Gary, Indiana  
Permit Reviewer: EAL/MES

Page 27 of 52  
OP No. F 089-15623-03226

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway  
Gary, Indiana 46402

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and Gary Department of Environmental Affairs not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, and Gary Department of Environmental Affairs, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

#### **Compliance Requirements [326 IAC 2-1.1-11]**

##### C.12 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

#### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

##### C.13 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

##### C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

##### C.15 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.

- (b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**C.16 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]**

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If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**C.17 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]**

- 
- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ and Gary Department of Environmental Affairs upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
    - (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
    - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.
  - (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
    - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or
    - (2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and imple-

- ment additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
- (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
- (4) Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
- (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
- (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
- (3) An automatic measurement was taken when the process was not operating.
- (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.18 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend

the retesting deadline.

- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**C.19 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]**

- (a) The Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8). The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway  
Gary, Indiana 46402

The emission statement does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The emission statement required by this permit shall be considered timely if the date post-marked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Gary Department of Environmental Affairs on or before the date it is due.

**C.20 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or Gary Department of Environmental Affairs makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or Gary Department of Environmental Affairs within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.21 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as



defined by 326 IAC 2-1.1-1(1).

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway  
Gary, Indiana 46402

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, and Gary Department of Environmental Affairs on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

### **Stratospheric Ozone Protection**

#### **C.22 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]:

- (a) One (1) drum mixer, constructed in 1998, equipped with a baghouse for PM control and exhausted to Stack SV1, capacity: 600 tons per hour.
- (b) One (1) dryer burner, constructed in 1998, equipped with a low NO<sub>x</sub> burner, firing natural gas as primary fuel, using butane or propane gas as a backup fuel, exhausting to Stack SV1, rated at 200 million British thermal units per hour.
- (c) Two (2) hot oil heaters, firing natural gas as primary fuel, using No. 2 distillate oil and propane gas as backup fuels, exhausting to Stacks SV2 and SV3, capacity: 2.0 and 2.256 million British thermal units per hour, respectively.
- (d) Four (4) tanks, identified as 13A, 13B, 13C and 13D, storing liquid asphalt, each constructed prior to July 23, 1984, exhausting to Stacks SV4, SV5, SV6 and SV7, capacity: 12,500 gallons, each.
- (e) One (1) tank, storing liquid asphalt, constructed in 1998, exhausting to Stack SV8, capacity: 25,000 gallons.
- (f) One (1) tank, storing No. 2 distillate oil, exhausting to Stack SV10, capacity: 10,000 gallons.
- (g) One (1) tank, storing liquid asphalt, constructed in 2002, exhausting to Stack SV11, capacity: 30,000 gallons.
- (h) Cold-mix cutback asphalt production.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60 Subpart I.

#### D.1.2 Particulate Matter (PM<sub>10</sub>) [326 IAC 2-8-4] [326 IAC 2-3]

- (a) Pursuant to 326 IAC 2-8-4, emissions of particulate matter 10 microns or less in diameter (PM<sub>10</sub>) from the aggregate dryer/mixer shall not exceed 0.194 pounds per ton of asphalt produced, including both filterable and condensable fractions.
- (b) The source shall produce less than 1,000,000 tons of asphalt per 365 consecutive day period, with compliance determined at the end of each day, equivalent to PM<sub>10</sub> emissions less than 97.0 tons per year based on the 0.194 pounds of PM<sub>10</sub> per ton of asphalt produced. Compliance with this limit will satisfy 326 IAC 2-8-4. Therefore, the Part 70 rules (326 IAC 2-7), and 326 IAC 2-3, do not apply.

#### D.1.3 Particulate Matter (PM) [326 IAC 2-3]

- (a) Pursuant to 326 IAC 2-3, PM emissions from the aggregate dryer/mixer shall not exceed

0.1528 pounds per ton of asphalt produced.

- (b) The source shall produce less than 1,000,000 tons of asphalt per 365 consecutive day period, with compliance determined at the end of each day, equivalent to PM emissions less than 76.4 tons per year based on the 0.1528 pounds of PM per ton of asphalt produced. Therefore, the Emission Offset rules (326 IAC 2-3) do not apply.

D.1.4 Particulate Matter (PM) [326 IAC 12] [40 CFR 60.90]

Pursuant to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I), no owner or operator subject to the provisions of Subpart I shall discharge into the atmosphere from any affected facility any gases which:

- (a) Contain particulate matter in excess of 0.04 grains per dry standard cubic foot, equivalent to 28.8 pounds per hour at a flow rate of 119,086 actual cubic feet per minute and a temperature of 250 degrees Fahrenheit.
- (b) Exhibit twenty (20%) percent opacity, or greater.

D.1.5 Particulate Matter (PM) [326 IAC 6-1]

Pursuant to 326 IAC 6-1-2(a), the owner or operator shall not allow or permit discharge to the atmosphere of any gases from the one (1) drum mixer which contain particulate matter in excess of 0.03 grains per dry standard cubic foot, equivalent to 21.63 pounds per hour at a flow rate of 119,086 actual cubic feet per minute and a temperature of 250 degrees Fahrenheit.

D.1.6 Nitrogen Oxides (NO<sub>x</sub>) [326 IAC 2-8-4]

- (a) Pursuant to 326 IAC 2-8-4, the input of natural gas to the dryer/burner shall be limited to less than 1,387.86 million cubic feet per 365 consecutive day period, with compliance determined at the end of each day, which is equivalent to NO<sub>x</sub> emissions of less than 97.15 tons per year. Therefore, the Part 70 rules (326 IAC 2-7), do not apply.
- (b) For purposes of determining compliance based on NO<sub>x</sub> emissions, each gallon of butane shall be equivalent to 0.00015 million cubic feet of natural gas, and each gallon of propane shall be equivalent to 0.00014 million cubic feet of natural gas.

D.1.7 Volatile Organic Compounds (VOC) [326 IAC 2-8-4] [326 IAC 2-3]

Pursuant to 326 IAC 2-8-4, the total amount of liquid binder used in the production of cold mix cutback asphalt shall be limited to less than 675.8 tons of liquid binder per 365 consecutive day period, and the daily average diluent content of the liquid binder shall not exceed five (5.0%) percent. This is equivalent to VOC emissions of less than 20.8 tons per year. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-3 are not applicable.

D.1.8 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: asphalt paving), the owner or operator shall not cause or allow the use of asphalt emulsion containing more than seven (7.0) percent oil distillate by volume of emulsion for any paving application except the following purposes:

- (a) penetrating prime coating
- (b) stockpile storage
- (c) application during the months of November, December, January, February and March

**D.1.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the drum mixer/dryer burner and any control devices.

**Compliance Determination Requirements**

**D.1.10 Testing Requirements [326 IAC 2-8-5(1), (4)] [326 IAC 2-1.1-11]**

Pursuant to Condition D.1.11 of FESOP 089-8947-03226, issued on January 6, 1998, the Permittee shall perform PM and PM<sub>10</sub> testing in order to demonstrate compliance with Conditions D.1.2, D.1.3, D.1.4 and D.1.5, utilizing methods as approved by the Commissioner. These tests shall be conducted prior to July 27, 2003, and shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>. Testing shall be conducted in accordance with Section C- Performance Testing.

**D.1.11 VOC Emissions**

Compliance with Condition D.1.7 shall be demonstrated within 30 days of the end of each day based on the liquid binder usage for the 365 consecutive day period.

**D.1.12 Particulate Matter (PM)**

In order to comply with Conditions D.1.2, D.1.3, D.1.4 and D.1.5, the baghouse for PM and PM<sub>10</sub> control shall be in operation and control emissions from the drum mixer/dryer at all times that the drum mixer/dryer is in operation and exhausting to the atmosphere.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**D.1.13 Visible Emissions Notations**

- (a) Visible emission notations of the conveyers, material transfer points and the drum mixer/burner stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

**D.1.14 Parametric Monitoring**

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the mixer/dryer, at least once per shift when the drying/mixing process is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable

response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and Gary Department of Environmental Affairs, and shall be calibrated at least once every six (6) months.

#### **D.1.15 Baghouse Inspections**

An inspection shall be performed within the last month of each calendar quarter of all bags controlling the aggregate mixer/dryer. All defective bags shall be replaced.

#### **D.1.16 Broken or Failed Bag Detection**

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### **D.1.17 Cutback Asphalt Production Rate**

To document compliance with Condition D.1.7, the Permittee shall maintain daily records at the source of the following values:

- (a) Amount of liquid binder used in the production of cold mix cutback asphalt; and
- (b) Average diluent content of the liquid binder.

#### **D.1.18 Record Keeping Requirements**

- (a) To document compliance with Conditions D.1.2 and D.1.3, the Permittee shall maintain records of the amount of asphalt produced per day.
- (b) To document compliance with Condition D.1.6, the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken daily and shall be complete and sufficient to establish compliance with the NO<sub>x</sub> emission limit

established in Condition D.1.6.

- (1) Calendar dates covered in the compliance determination period; and
- (2) Actual fuel usage of each fuel used since last compliance determination period and equivalent NO<sub>x</sub> emissions.

- (c) To document compliance with Condition D.1.13, the Permittee shall maintain records of visible emission notations of the conveyers, material transfer points and the drum mixer/ burner stack exhaust SV1 once per shift.
- (d) To document compliance with Condition D.1.14, the Permittee shall maintain once per shift records of the total static pressure drop during normal operation.
- (e) To document compliance with Condition D.1.15, the Permittee shall maintain records of the results of the inspections required under Condition D.1.15.
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.19 Record Keeping [326 IAC 12] [40 CFR 60.110b, Subpart Kb]

The one (1) tank, exhausting to Stack SV8, with a capacity of 25,000 gallons, and the one (1) tank, exhausting to Stack SV11, with a capacity of 30,000 gallons, shall comply with the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb). These tanks are subject to only 40 CFR Part 60.116b, paragraphs (a) and (b), which require the Permittee to maintain accessible records showing the dimensions of the storage vessels and an analysis showing the capacity of the storage vessels. Records shall be kept for the life of the storage tanks.

D.1.20 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.2, D.1.3, D.1.6 and D.1.7 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**Gary Department of Environmental Affairs**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Rieth Riley Construction Co., Inc.  
Source Address: 301 North Cline Avenue, Gary, Indiana 46406  
Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477  
FESOP No.: F 089-15623-03226

**This certification shall be included when submitting monitoring, testing reports/results  
or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Affidavit (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**Gary Department of Environmental Affairs**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Rieth Riley Construction Co., Inc.  
Source Address: 301 North Cline Avenue, Gary, Indiana 46406  
Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477  
FESOP No.: F 089-15623-03226

**This form consists of 2 pages**

**Page 1 of 2**

**9** This is an emergency as defined in 326 IAC 2-7-1(12)  
    CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and  
    CThe Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.

Rieth Riley Construction Co., Inc.  
Gary, Indiana  
Permit Reviewer: EAL/MES

Page 44 of 52  
OP No. F 089-15623-03226

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE DATA SECTION**

**Gary Department of Environmental Affairs**

**FESOP Monthly Report**

Source Name: Rieth Riley Construction Co., Inc.  
 Source Address: 301 North Cline Avenue, Gary, Indiana 46406  
 Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477  
 FESOP No.: F 089-15623-03226  
 Facility: Dryer/mixer  
 Parameter: Amount of natural gas or equivalent burned in the aggregate dryer (NO<sub>x</sub>)  
 Limit: Less than 1,387.86 million cubic feet per 365 consecutive day period, with compliance determined at the end of each day, where each gallon of butane shall be equivalent to 0.00015 million cubic feet of natural gas, and each gallon of propane shall be equivalent to 0.00014 million cubic feet of natural gas, equivalent to NO<sub>x</sub> emissions less than 97.15 tons per year.

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Day	Million cubic feet of natural gas or equivalent burned (this day)	Million cubic feet of natural gas or equivalent burned (last 364 days)	Million cubic feet of natural gas or equivalent burned (365 day total)	Day	Million cubic feet of natural gas or equivalent burned (this day)	Million cubic feet of natural gas or equivalent burned (last 364 days)	Million cubic feet of natural gas or equivalent burned (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.  
 Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Rieth Riley Construction Co., Inc.  
Gary, Indiana  
Permit Reviewer: EAL/MES

Page 46 of 52  
OP No. F 089-15623-03226

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**Gary Department of Environmental Affairs**

**FESOP Monthly Report**

Source Name: Rieth Riley Construction Co., Inc.  
Source Address: 301 North Cline Avenue, Gary, Indiana 46406  
Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477  
FESOP No.: F 089-15623-03226  
Facility: Dryer/mixer  
Parameter: Tons of asphalt produced (PM and PM<sub>10</sub>)  
Limit: Less than 1,000,000 tons of asphalt produced per 365 consecutive day period, with compliance determined at the end of each day, equivalent to PM emissions less than 76.4 tons per year and PM<sub>10</sub> emissions less than 97.0 tons per year.

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Day	Tons of asphalt produced (this day)	Tons of asphalt produced (last 364 days)	Tons of asphalt produced (365 day total)	Day	Tons of asphalt produced (this day)	Tons of asphalt produced (last 364 days)	Tons of asphalt produced (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Rieth Riley Construction Co., Inc.  
Gary, Indiana  
Permit Reviewer: EAL/MES

Page 48 of 52  
OP No. F 089-15623-03226

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**Gary Department of Environmental Affairs  
FESOP Monthly Report**

Source Name: Rieth Riley Construction Co., Inc.  
Source Address: 301 North Cline Avenue, Gary, Indiana 46406  
Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477  
FESOP No.: F 089-15623-03226  
Facility: Cutback asphalt production  
Parameter: Amount of liquid binder used in the production of cutback asphalt (VOC)  
Limit: Less than 675.8 tons of liquid binder used in the production of cutback asphalt per 365 consecutive day period, with compliance determined at the end of each day, equivalent to VOC emissions less than 20.8 tons per year.

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Day	tons of liquid binder used (this day)	tons of liquid binder used (last 364 days)	tons of liquid binder used (365 day total)	Day	tons of liquid binder used (this day)	tons of liquid binder used (last 364 days)	tons of liquid binder used (365 day total)
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16							

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Rieth Riley Construction Co., Inc.  
Gary, Indiana  
Permit Reviewer: EAL/MES

Page 50 of 52  
OP No. F 089-15623-03226

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**Gary Department of Environmental Affairs**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Rieth Riley Construction Co., Inc.  
Source Address: 301 North Cline Avenue, Gary, Indiana 46406  
Mailing Address: P.O. Box 477, Goshen, Indiana 46527-0477  
FESOP No.: F 089-15623-03226

**Months:** \_\_\_\_\_ **to** \_\_\_\_\_ **Year:** \_\_\_\_\_

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

November 7, 2002

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP) Renewal

**Source Name:** Rieth Riley Construction Co., Inc.  
**Source Location:** 301 North Cline Avenue, Gary, Indiana 46406  
**County:** Lake  
**FESOP:** F 089-15623-03226  
**SIC Code:** 2951  
**Permit Reviewer:** Edward A. Longenberger

On October 1, 2002, the Office of Air Quality (OAQ) had a notice published in the Post Tribune and the Times, Merrillville, Indiana, stating that Rieth Riley Construction Co., Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) renewal to continue to operate a hot mix asphalt production source with a baghouse for particulate matter control. The notice also stated that OAQ proposed to issue a FESOP renewal for this operation and provided information on how the public could review the proposed FESOP renewal and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP renewal should be issued as proposed.

Upon further review, the OAQ has decided to make the following changes to the FESOP renewal. The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

1. All references to "Gary Air and Land Pollution Control" have been changed to "Gary Department of Environmental Affairs."
2. A typographical error was corrected in Condition D.1.19:

**D.1.19 Record Keeping [326 IAC 12] [40 CFR 60.110b, Subpart Kb]**

---

The one (1) tank, exhausting to Stack SV8, with a capacity of 25,000 gallons, and the one (1) tank, exhausting to Stack SV11, with a capacity of 30,000 gallons, shall comply with the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb). ~~This tank is~~ **These tanks are** subject to only 40 CFR Part 60.116b, paragraphs (a) and (b), which require the Permittee to maintain accessible records showing the dimensions of the storage vessels and an analysis showing the capacity of the storage vessels. Records shall be kept for the life of the storage tanks.

3. Lake County is not nonattainment for CO:

**A.1 General Information [326 IAC 2-8-3(b)]**

---

The Permittee owns and operates a stationary hot mix asphalt production source.

Authorized Individual:	Asphalt Plant Specialist
Source Address:	301 North Cline Avenue, Gary, Indiana 46406
Mailing Address:	P.O. Box 477, Goshen, Indiana 46527-0477
General Source Phone Number:	574 - 875 - 5183
SIC Code:	2951
County Location:	Lake
Source Location Status:	Severe nonattainment for Ozone, Primary nonattainment for SO <sub>2</sub> and CO, Moderate Nonattainment for PM <sub>10</sub> Attainment for all other criteria pollutants

Source Status: Federally Enforceable State Operating Permit (FESOP)  
Minor Source, under Emission Offset Rules;  
Minor Source, Section 112 of the Clean Air Act

4. A superfluous colon was removed from the first line of Condition D.1.8:

**D.1.8 Volatile Organic Compounds (VOC) [326 IAC 8-5-2]**

Pursuant to 326 IAC 8-5-2 (Miscellaneous Operations: asphalt paving), the owner or operator shall: not cause or allow the use of asphalt emulsion containing more than seven (7.0) percent oil distillate by volume of emulsion for any paving application except the following purposes:

- (a) penetrating prime coating
- (b) stockpile storage
- (c) application during the months of November, December, January, February and March

5. The general provisions rule cite was added to Condition B.3, and the condition was changed to clarify when this permit expires:

**B.3 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]**

This permit is issued for a fixed term of five (5) years from the ~~original~~ **issuance date of this permit**, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

6. Since Condition B.8(c) - Duty to Supplement and Provide Information - already addresses confidentiality, the last sentence of (b) was revised to remove the statement about confidential information, and (c) was updated for clarity. Also, the condition was revised to change a rule reference. Subpart (c) references 326 IAC 17. This rule was repealed by the Air Pollution Control Board on January 26, 2000. The new rule reference has been added as follows:

**B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]  
[326 IAC 2-8-5(a)(4)]**

- (b) The Permittee shall furnish to IDEM, OAQ, and Gary Department of Environmental Affairs within a reasonable time, any information that IDEM, OAQ, and Gary Department of Environmental Affairs may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, and Gary Department of Environmental Affairs copies of records required to be kept by this permit. ~~or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality. [326 IAC 2-8-4(5)(E)]~~
- (c) **For information furnished by the Permittee to IDEM, OAQ,** the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

7. The requirement to include emergencies in the Quarterly Deviation and Compliance Monitoring Report has been moved from Condition B.15 to Condition B.14. The statement at the end of Condition

B.14(b)(4) - Emergency Provisions - has been removed, because it is stated again in Condition B.14(f):

B.14 Emergency Provisions [326 IAC 2-8-12]

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ and Gary Department of Environmental Affairs / Northwest Regional Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)  
or,

Telephone No.: 317-233-5674 (ask for Compliance Section)

Facsimile No.: 317-233-5967

Gary Department of Environmental Affairs: 219-882-3007, facsimile 219-882-3012

Northwest Regional Office: 219-881-6712, facsimile 219-881-6745

~~Failure to notify IDEM, OAQ and Gary Department of Environmental Affairs / Northwest Regional Office, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]~~

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway

Gary, Indiana 46402

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ and Gary Department of Environmental Affairs, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ and Gary Department of Environmental Affairs, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.



Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.**

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]**

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- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway  
Gary, Indiana 46402

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

~~(c) — Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.~~

8. Condition B.18(b) has been revised to replace "should" with "shall" :

**B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]**

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- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012

504 Broadway  
Gary, Indiana 46402

Any such application ~~should~~ **shall** be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

9. In order to be consistent with 326 IAC 2-8-15(a)(5), the following rule cite in Condition B.19(a)(5) has been revised. Condition (b) has been removed, because it is a Part 70 requirement, but not a FESOP requirement:

**B.19 Operational Flexibility [326 IAC 2-8-15] [326 IAC 2-8-11.1]**

---

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

Gary Department of Environmental Affairs  
Suite 1012  
504 Broadway  
Gary, Indiana 46402

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public

review.

Such records shall consist of all information required to be submitted to IDEM, OAQ and Gary Department of Environmental Affairs, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

~~(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:~~

~~(1) A brief description of the change within the source;~~

~~(2) The date on which the change will occur;~~

~~(3) Any change in emissions; and~~

~~(4) Any permit term or condition that is no longer applicable as a result of the change.~~

~~The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.~~

10. A rule cite in Condition B.22(c) has been corrected:

**B.22** Transfer of Ownership or Operational Control [326 IAC 2-8-10]

~~(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-140(b)(3)]~~

11. 326 IAC 2-1.1-7 specifies that nonpayment may result in revocation of the permit. This is not specified in 326 IAC 2-8; therefore, the following rule cite is being added to Condition B.23. Also, the section and phone number of who the Permittee can contact has been corrected in Condition B.23(c):

**B.23** Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] **[326 IAC 2-1.1-7]**

~~(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 4320 (ask for OAQ, Technical Support and Modeling Section I/M & Billing Section), to determine the appropriate permit fee.~~

12. Condition C.1 - Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour - has been added to Section C of the FESOP. All subsequent Section C conditions are renumbered accordingly:

**C.1** Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P] [326 IAC 6-3-2]

**(a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.**

**(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process**

**weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.**

13. Condition C.9(e) (now C.10(e)) has been revised to correct the rule cite:

**C.910 Asbestos Abatement Projects** [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(e) Procedures for Asbestos Emission Control

The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-14 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

14. The following was added to Condition C.11 (now C.12) - Compliance Requirements - to state what OAQ does when stack testing, monitoring, or reporting is required to assure compliance with applicable requirements:

**C.142 Compliance Requirements** [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements **by issuing an order under 326 IAC 2-1.1-11**. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

15. The following rule cite was corrected in Condition C.16 (now C.17(e)):

**C.167 Compliance Response Plan - Preparation, Implementation, Records, and Reports** [326 IAC 2-8-4] [326 IAC 2-8-5]

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of ~~326 IAC 2-7-16~~ **326 IAC 2-8-12** (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

16. Condition C.20 (now C.21(d)) has been revised to indicate that all reports required in Section D of the permit shall be submitted within thirty (30) days of the end of the reporting period, and require certification:

**C.201 General Reporting Requirements** [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(d) Unless otherwise specified in this permit, ~~any quarterly~~ **all reports** required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. **All** The reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

17. The first box on the Emergency Occurrence Report form was revised to include the word "working" in order to be consistent with 326 IAC 2-8-12(b)(5) and the Emergency Provision:

**This form consists of 2 pages**

**Page 1 of 2**

**9** This is an emergency as defined in 326 IAC 2-7-1(12)

C The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and

C The Permittee must submit notice in writing or by facsimile within two (2) **working** days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

November 7, 2002

Indiana Department of Environmental Management  
Office of Air Quality  
Gary Air and Land Pollution Control

Technical Support Document (TSD)  
for a Federally Enforceable State Operating Permit (FESOP) Renewal

**Source Background and Description**

<b>Source Name:</b>	<b>Rieth Riley Construction Co., Inc.</b>
<b>Source Location:</b>	<b>301 North Cline Avenue, Gary, Indiana 46406</b>
<b>County:</b>	<b>Lake</b>
<b>SIC Code:</b>	<b>2951</b>
<b>Operation Permit No.:</b>	<b>F 089-15623-03226</b>
<b>Permit Reviewer:</b>	<b>Edward A. Longenberger</b>

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Rieth Riley Construction Co., Inc. relating to the operation of a stationary hot mix asphalt production source. Rieth Riley Construction Co., Inc. was issued FESOP 089-8947, on January 6, 1998.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) drum mixer, constructed in 1998, equipped with a baghouse for PM control and exhausted to Stack SV1, capacity: 600 tons per hour.
- (b) One (1) dryer burner, constructed in 1998, equipped with a low NO<sub>x</sub> burner, firing natural gas as primary fuel, using butane or propane gas as a backup fuel, exhausting to Stack SV1, rated at 200 million British thermal units per hour.
- (c) Two (2) hot oil heaters, firing natural gas as primary fuel, using No. 2 distillate oil and propane gas as backup fuels, exhausting to Stacks SV2 and SV3, capacity: 2.0 and 2.256 million British thermal units per hour, respectively.
- (d) Four (4) tanks, identified as 13A, 13B, 13C and 13D, storing liquid asphalt, each constructed prior to July 23, 1984, exhausting to Stacks SV4, SV5, SV6 and SV7, capacity: 12,500 gallons, each.
- (e) One (1) tank, storing liquid asphalt, constructed in 1998, exhausting to Stack SV8, capacity: 25,000 gallons.
- (f) One (1) tank, storing No. 2 distillate oil, exhausting to Stack SV10, capacity: 10,000 gallons.
- (g) Cold-mix cutback asphalt production.

**Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

### **New Emission Units and Pollution Control Equipment Receiving New Source Review Approval**

- (a) This FESOP renewal includes the addition of the following emission unit:

One (1) tank, storing liquid asphalt, constructed in 2002, exhausting to Stack SV11, capacity: 30,000 gallons.

This tank was constructed in 2002, with negligible VOC emissions, and therefore falls below exemption levels.

- (b) This FESOP renewal also includes the addition of propane as a backup fuel for the aggregate dryer burner.

### **Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (b) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.

### **Existing Approvals**

- (a) FESOP 089-8947-03226, issued on January 6, 1998, and expires on January 6, 2003;
- (b) SPR 089-9570-03226, issued on June 2, 1998; and
- (c) AAF 089-15146-03226, issued on January 4, 2002

All conditions from previous approvals were incorporated into this FESOP except the following:

- (a) SPR 089-9570-03226, issued on June 2, 1998

Condition D.1.1, the requirement to limit the sulfur content of the No. 2 fuel oil burned in the hot oil heaters to three-tenths (0.3) pounds per million British thermal units, pursuant to 326 IAC 7-4-1.1 (Sulfur Dioxide Emission Limitations: Lake County).

Reason not incorporated: The hot oil heaters are not subject to the requirements of 326 IAC 7-4-1.1 because they are not subject to 326 IAC 7-1.1. The hot oil heaters are not subject to 326 IAC 7-1.1 because they do not have the potential to emit twenty-five (25) tons per year or ten (10) pounds per hour of SO<sub>2</sub>.

- (b) FESOP 089-8947-03226 issued on January 6, 1998

Condition D.1.3, the requirement to limit the input of natural gas to the aggregate dryer burner to less than 484.32 million cubic feet per 365 day period, equivalent to NO<sub>x</sub> emissions of 20.1 tons per year.

Reason not incorporated: Since NO<sub>x</sub> is no longer considered a precursor for ozone, the total source emissions of NO<sub>x</sub> shall be limited to less than one hundred (100) tons per year, in order to maintain FESOP status. A revised natural gas limit of 1387.86 million cubic feet per 365 consecutive day period, equivalent to NO<sub>x</sub> emissions less than 97.15 tons per year, is included as Condition D.1.6 of the proposed permit.

- (c) FESOP 089-8947-03226 issued on January 6, 1998

Condition D.1.6, the requirement to limit PM and PM<sub>10</sub> emissions to less than 20.04 pounds per hour, in order to comply with 326 IAC 2-3 and 326 IAC 2-8-4.

Reason not incorporated: PM and PM<sub>10</sub> emissions will be limited to an emission factor not to exceed 0.1528 pounds of PM per ton of asphalt produced and 0.194 pounds of PM<sub>10</sub> per ton of asphalt produced. These emission factors, combined with an annual production limit less than 1,000,000 tons per year, render the requirements of 326 IAC 2-3 and 326 IAC 2-7 not applicable. The limits are contained in Conditions D.1.2 and D.1.3 of the proposed permit.

- (d) FESOP 089-8947-03226 issued on January 6, 1998

Condition D.1.7, the annual production limit of 1,982,153 tons of asphalt produced per year.

Reason not incorporated: As stated above, the annual production limit has been changed to 1,000,000 tons of asphalt produced per year.

- (e) FESOP 089-8947-03226 issued on January 6, 1998

Condition D.1.8, the liquid binder usage limit of 718 tons per year, equivalent to VOC emissions less than 22.1 tons per year.

Reason not incorporated: Due to updates in the AP-42 emission factors for VOC from combustion, the emissions of VOC from cutback asphalt production must be limited to less than 20.8 tons per year. Therefore, the source is now limited to less than 675.8 tons of liquid binder per 365 consecutive day period. This limit is contained in Condition D.1.7 of the proposed permit.

- (f) FESOP 089-8947-03226 issued on January 6, 1998

The frequency of the visible emissions notations required by Condition D.1.13 has been changed from daily to once per shift.

Reason: IDEM, OAQ, has determined that daily compliance monitoring is not sufficient to monitor continuous compliance with the applicable rules for these types of operations. Therefore, visible emissions will be required once per shift in the proposed permit.

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This



recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on February 21, 2002. Additional information was received on August 22, 2002.

There was no notice of completeness letter mailed to the source.

### Emission Calculations

See pages 1 through 10 of 10 of Appendix A of this document for detailed emissions calculations.

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/year)
PM	73,978
PM <sub>10</sub>	17,165
SO <sub>2</sub>	10.1
VOC	greater than 100
CO	75.2
NO <sub>x</sub>	185

Note: For the purpose of determining Title V applicability for particulates, PM<sub>10</sub>, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
TOTAL HAPs *	19.97

\* HAPs include benzene, ethyl benzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury and nickel compounds. No single HAP exceeds a potential to emit of greater than ten (10) tons per year.

The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM<sub>10</sub>, NO<sub>x</sub> and CO are equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

### Potential to Emit After Issuance

The source, issued a FESOP on January 6, 1998, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP (F 089-8947-03226; issued on January 6, 1998).

	<b>Limited Potential to Emit</b> (tons/year)						
Process/facility	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Drum Mixer including Burner (Worst Case)	Less than 76.4	Less than 97.0	0.417	3.81	58.3	Less than 97.15	19.97
Hot Oil Heaters (Worst Case)	0.270	0.446	9.59	0.387	1.57	2.85	-
Conveying/Handling	6.91	0.691	-	-	-	-	-
Screening	15.8	1.58	-	-	-	-	-
Storage Piles	0.567	0.199	-	-	-	-	-
Unpaved Roads	149	33.3	-	-	-	-	-
Cutback Asphalt	-	-	-	Less than 20.8	-	-	-
Total Emissions	Less than 100*	Less than 100*	10.0	Less than 25.0	59.9	less than 100	Single less than 10 Total less than 25

\* Excluding fugitive emissions from unpaved roads.

#### County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM <sub>10</sub>	Moderate Nonattainment
SO <sub>2</sub>	Primary Nonattainment
NO <sub>2</sub>	Attainment
Ozone	Severe Nonattainment
CO	Primary Nonattainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Lake County

has been designated as nonattainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Fugitive Emissions

Although this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, there are applicable New Source Performance Standards that were in effect on August 7, 1980. Therefore, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Since unpaved roads are not an affected facility of the applicable NSPS (40 CFR 60.90, Subpart I), fugitive PM emissions resulting from unpaved roads are not counted toward determination of PSD and Emission Offset applicability.

**Federal Rule Applicability**

(a) This asphalt plant, constructed in 1998, is still subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.90, Subpart I). No owner or operator subject to the provisions of Subpart I shall discharge into the atmosphere from any affected facility any gases which:

(1) contain particulate matter in excess of 0.04 grains per dry standard cubic foot, equivalent to 28.8 pounds per hour at a flow rate of 119,086 acfm and a temperature of 250 degrees Fahrenheit.

(2) exhibit 20 percent opacity, or greater.

(b) The one (1) tank, exhausting to Stack SV8, with a capacity of 25,000 gallons, is still subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb), because the tank was constructed after July 23, 1984. Since the material stored in this tank has a maximum true vapor pressure less than fifteen (15) kiloPascals, the tank is only subject to 40 CFR Part 60.116b, paragraphs (a) and (b), which require record keeping.

The one (1) tank, exhausting to Stack SV11, constructed in 2002, with a capacity of 30,000 gallons, is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb), because the tank was constructed after July 23, 1984. Since the material stored in this tank has a maximum true vapor pressure less than fifteen (15) kiloPascals, the tank is only subject to 40 CFR Part 60.116b, paragraphs (a) and (b), which require record keeping.

The four (4) tanks, identified as 13A, 13B, 13C and 13D, each with a capacity of 12,500 gallons, are not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb), because the tanks were constructed prior to July 23, 1984. The one (1) tank, with a capacity of 10,000 gallons, is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.110b, Subpart Kb), since the tank has a capacity less than forty (40) cubic meters.

(c) There are still no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Parts 61, 62 and 63) applicable to this source.

**State Rule Applicability - Entire Source**

### 326 IAC 2-2 (Prevention of Significant Deterioration)

This source was constructed in 1998, and is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2. The potential to emit of NO<sub>x</sub> is less than two-hundred fifty (250) tons per year. Therefore, the requirements of 326 IAC 2-2 are not applicable, and this source is a minor source with respect to this rule.

### 326 IAC 2-3 (Emission Offset)

This source was constructed in 1998. Because this source is located in Lake County, the amount of VOC shall be limited to less than twenty-five (25) tons per year. Emissions of PM and PM<sub>10</sub> shall be limited to less than one hundred (100) tons per year.

- (a) In order to limit the potential to emit PM from the entire source to less than one hundred (100) tons per year, the PM emissions from the drum mixer (including the burner) will be limited to less than 76.4 tons per year. The source has requested a production limit less than 1,000,000 tons of asphalt produced per year. This production limit, combined with an emission factor not to exceed 0.1528 pounds of PM per ton of asphalt produced, is equivalent to less than 76.4 tons of PM per year.
- (b) In order to limit the potential to emit PM<sub>10</sub> from the entire source to less than one hundred (100) tons per year, the PM<sub>10</sub> emissions from the drum mixer (including the burner) will be limited to less than 97.0 tons per year. The source has requested a production limit less than 1,000,000 tons of asphalt produced per year. This production limit, combined with an emission factor not to exceed 0.194 pounds of PM<sub>10</sub> per ton of asphalt produced, is equivalent to less than 97.0 tons of PM<sub>10</sub> per year.
- (c) The applicant has also accepted a liquid binder usage limit for the production of cold mix cutback asphalt of less than 675.8 tons per year which is equivalent to VOC emissions of 20.8 tons per year based on 5.0 percent diluent present in the asphalt.

Compliance with the above limits will render the requirements of 326 IAC 2-3 not applicable.

### 326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit of more than ten (10) tons per year of NO<sub>x</sub> and VOC in Lake County. Pursuant to this rule, the owner/operator of the source must submit an emission statement for the source. The statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6 and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8).

### 326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM<sub>10</sub> and NO<sub>x</sub> shall be limited to less than one hundred (100) tons per year. Because this source is located in Lake County, the amount of VOC shall be limited to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

- (a) In order to limit the potential to emit PM<sub>10</sub> from the entire source to less than one hundred (100) tons per year, the PM<sub>10</sub> emissions from the drum mixer (including the burner) will be limited to 97.0 tons per year. The source has requested a production limit of 1,000,000 tons

of asphalt produced per year. This production limit, combined with an emission factor not to exceed 0.194 pounds of PM<sub>10</sub> per ton of asphalt produced, is equivalent to 97.0 tons of PM<sub>10</sub> per year.

- (b) The applicant has accepted a natural gas fuel limit to the dryer/burner of less than 1,387.86 million cubic feet per 365 consecutive day period which is equivalent to an NO<sub>x</sub> limit of less than 97.15 tons per year (see page 10 of 10 of Appendix A). The full NO<sub>x</sub> potential emission rate of 2.85 tons per year from the two (2) hot oil heaters has been assumed in computing this limit.

For purposes of determining compliance based on NO<sub>x</sub> emissions, each gallon of butane shall be equivalent to 0.00015 million cubic feet of natural gas, and each gallon of propane shall be equivalent to 0.00014 million cubic feet of natural gas.

- (c) The applicant has also accepted a liquid binder usage limit for the production of cold mix cutback asphalt of less than 675.8 tons per year which is equivalent to VOC emissions of 20.8 tons per year based on 5.0 percent diluent present in the asphalt.

Compliance with the above limits will render the requirements of 326 IAC 2-7 not applicable.

#### 326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements)

This source is located in Lake County and has the potential to emit fugitive particulate matter in excess of five (5) tons per year, therefore, this source is subject to the requirements of 326 IAC 6-1-11.1. A summary of the requirements is as follows:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.

- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (h) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The  $PM_{10}$  emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on September 4, 1997. The plan consists of:

- (a) adequate wet suppression of dust from unpaved roadways on an "as needed" basis;
- (b) adequate wet suppression of dust from aggregate storage piles on an "as needed" basis.

#### 326 IAC 6-4 (Fugitive Dust Emissions Limitations)

This rule requires that the source not generate fugitive dust to the extent that some portion of the material escapes beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located.

#### 326 IAC 6-5 (Fugitive Particulate Matter Emissions Limitations)

This source is located in a nonattainment area for particulate matter. However, 326 IAC 6-5 is not applicable to this source, because it is located in Lake County. The source must comply with 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements).

#### 326 IAC 7-1.1-2 (Sulfur Dioxide Emission Limitations)

This rule does not apply because no facility has the potential to emit  $SO_2$  greater than ten (10) pounds per hour or twenty-five (25) tons per year.

#### 326 IAC 7-4-1.1 (Sulfur Dioxide Emission Limitations: Lake County)

This rule does not apply because no facility has the potential to emit  $SO_2$  greater than ten (10) pounds per hour or twenty-five (25) tons per year.

#### 326 IAC 8-5-2 (Miscellaneous operations: asphalt paving)

No person shall cause or allow the use of cutback asphalt or asphalt emulsion containing more than seven percent (7%) oil distillate by volume of emulsion for any paving application except the following purposes:

- (a) penetrating prime coating
- (b) stockpile storage
- (c) application during the months of November, December, January, February and March.

## **State Rule Applicability - Individual Facilities**

### **326 IAC 6-1 (Nonattainment Area Particulate Limitations)**

This source is an asphalt concrete plant located in Lake County. However, this source is not subject to 326 IAC 6-1-2(c) (Nonattainment Area Particulate Limitations for Asphalt Concrete Plants), because it was constructed after June 11, 1973. Therefore, pursuant to 326 IAC 6-1-2(a), the owner or operator shall not allow or permit discharge to the atmosphere of any gases from the one (1) drum mixer which contain particulate matter in excess of 0.03 grains per dry standard cubic foot, equivalent to 21.63 pounds per hour at a flow rate of 119,086 acfm and a temperature of 250 degrees Fahrenheit. Compliance with this rule will assure compliance with NSPS Subpart I.

### **326 IAC 6-1-10.1 (Lake County PM<sub>10</sub> emission requirements)**

This source is not one of the sources listed in 326 IAC 6-1-10.1(d). Therefore, the requirements of 326 IAC 6-1-10.1, are not applicable.

## **Testing Requirements**

All testing requirements from previous approvals were incorporated into this FESOP.

A stack test for PM and PM<sub>10</sub> emissions to determine compliance with 326 IAC 6-1, 40 CFR 60, Subpart I and 326 IAC 2-8-4 was performed July 27, 1998. This test showed that the hot mix asphalt plant is in compliance with its permit requirements.

PM and PM<sub>10</sub> testing is required for the drum mixer and dryer/burner stack exhaust SV-1 prior to July 27, 2003 in order to assure compliance with 326 IAC 6-1, 40 CFR 60, Subpart I and 326 IAC 2-8-4.

## **Compliance Requirements**

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

All compliance requirements from previous approvals were incorporated into this FESOP. The compliance monitoring requirements applicable to this source are as follows:

The one (1) drum mixer has applicable compliance monitoring conditions as specified below:



- (a) Visible emissions notations of the baghouse shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.
- (b) The Permittee shall record the total static pressure drop across the baghouse controlling the one (1) drum mixer, at least once per shift when the dryer/mixer is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 to 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports.
- (c) An inspection shall be performed within the last month of each calendar quarter of all bags controlling the one (1) drum mixer. All defective bags shall be replaced.
- (d) In the event that bag failure has been observed:
  - (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this proposed permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.
  - (2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this proposed permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the one (1) drum mixer must operate properly to ensure compliance with 326 IAC 5-1 (Opacity), 326 IAC 6-1 (Nonattainment Area Particulate Limitations), 326 IAC 2-3 (Emission Offset) 326 IAC 2-8 (FESOP) and NSPS Subpart I.

## Conclusion

The operation of this stationary hot mix asphalt production source shall be subject to the conditions of the attached proposed FESOP No.: **F 089-15623-03226**.

## Appendix A: Emission Calculations

**Company Name:** Rieth-Riley Construction Co., Inc.  
**Plant Location:** 301 North Cline Avenue, Gary, Indiana 46406  
**County:** Lake  
**FESOP:** F 089-15623  
**Plt. ID:** 089-03226  
**Date:** February 21, 2002  
**Permit Reviewer:** Edward A. Longenberger

### I. Potential Emissions

#### A. Source emissions before controls

<div>Hot Oil Heater on Oil (oil/&lt;100MMBTU/uncontrolled)</div> <div>The following calculations determine the amount of emissions created by #2 &amp; #1 distillate fuel oil @ <u>0.500</u> % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3</div> <div>Pollutant: <u>4.256 MMBtu/hr * 8760 hrs/yr</u> * Ef (lbs/1000 gal) = (tons/yr) <u>138000.0 Btu/gal * 2000 lbs/ton</u></div> <div><div>P M: 2.0 lbs/1000 gal = PM-10: 3.3 lbs/1000 gal = S O x: 71.0 lbs/1000 gal = N O x: 20.0 lbs/1000 gal = V O C: 0.34 lbs/1000 gal = C O: 5.0 lbs/1000 gal =</div><div><u>0.270</u> tons/yr <u>0.446</u> tons/yr <u>9.591</u> tons/yr <u>2.702</u> tons/yr <u>0.046</u> tons/yr <u>0.675</u> tons/yr</div></div>	<div>Hot Oil Heater (butane)</div> <div>The following calculations determine the amount of emissions created by butane gas @ <u>0.20</u> grains sulfur per 100 cubic feet, based on 8760 hours of use and AP-42 Ch. 1.5, Table 1.5-1</div> <div><u>0.000 MMBtu/hr * 8760 hrs/yr</u> * Ef (lbs/1000 gal) = (tons/yr) <u>102600.0 Btu/gal * 2000 lbs/ton</u></div> <div><div>P M: 0.5 lbs/1000 gal = PM-10: 0.5 lbs/1000 gal = S O x: 0.02 lbs/1000 gal = N O x: 15.0 lbs/1000 gal = V O C: 0.60 lbs/1000 gal = C O: 2.1 lbs/1000 gal =</div><div><u>0.000</u> tons/yr <u>0.000</u> tons/yr <u>0.000</u> tons/yr <u>0.000</u> tons/yr <u>0.000</u> tons/yr <u>0.000</u> tons/yr</div></div>
<div>Hot Oil Heater on Gas (gas/&lt;100MMBTU/uncontrolled)</div> <div>The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3</div> <div>Pollutant: <u>4.256 MMBtu/hr * 8760 hrs/yr</u> * Ef (lbs/MMcf) = (tons/yr) <u>1000 Btu/cf * 2000 lbs/ton</u></div> <div><div>P M: 1.9 lbs/MMcf = P M-10: 7.6 lbs/MMcf = S O x: 0.6 lbs/MMcf = N O x: 100.0 lbs/MMcf = V O C: 5.5 lbs/MMcf = C O: 84.0 lbs/MMcf =</div><div><u>0.035</u> tons/yr <u>0.142</u> tons/yr <u>0.011</u> tons/yr <u>1.864</u> tons/yr <u>0.103</u> tons/yr <u>1.566</u> tons/yr</div></div>	<div>Hot Oil Heater (propane)</div> <div>The following calculations determine the amount of emissions created by propane gas @ <u>0.18</u> grains sulfur per 100 cubic feet, based on 8760 hours of use and AP-42 Ch. 1.5, Table 1.5-1</div> <div><u>4.256 MMBtu/hr * 8760 hrs/yr</u> * Ef (lbs/1000 gal) = (tons/yr) <u>91500.0 Btu/gal * 2000 lbs/ton</u></div> <div><div>P M: 0.4 lbs/1000 gal = PM-10: 0.4 lbs/1000 gal = S O x: 0.02 lbs/1000 gal = N O x: 14.0 lbs/1000 gal = V O C: 1.90 lbs/1000 gal = C O: 3.2 lbs/1000 gal =</div><div><u>0.081</u> tons/yr <u>0.081</u> tons/yr <u>0.004</u> tons/yr <u>2.852</u> tons/yr <u>0.387</u> tons/yr <u>0.652</u> tons/yr</div></div>

**Dryer Burner (gas/<100MMBTU/uncontrolled)**

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf) = (tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.0000</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.000</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.000</u> tons/yr
N O x:	100.0 lbs/MMcf =	<u>0.0000</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.000</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>0.000</u> tons/yr

**Dryer Burner (gas/>100MMBTU/uncontrolled)**

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3

Pollutant:	<u>0.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf)(tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>0.000</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>0.000</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.000</u> tons/yr
N O x:	190.0 lbs/MMcf =	<u>0.00</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>0.000</u> tons/yr
C O:	84.0 lbs/MMcf =	<u>0.000</u> tons/yr

Post-NSPS = 190

**Dryer Burner (gas/>100MMBTU/low nox)**

The following calculations determine the amount of emissions created by natural gas combustion, based on 8760 hours of use, AP-42 Ch. 1.4, Tables 1.4-1, 1.4-2, 1.4-3 (low NOx burner = 140, flue gas recirculation = 100)

Pollutant:	<u>200.000 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/MMcf)(tons/yr)</u>
	1000 Btu/cf * 2000 lbs/ton	
P M:	1.9 lbs/MMcf =	<u>1.664</u> tons/yr
P M-10:	7.6 lbs/MMcf =	<u>6.658</u> tons/yr
S O x:	0.6 lbs/MMcf =	<u>0.526</u> tons/yr
N O x:	140.0 lbs/MMcf =	<u>122.640</u> tons/yr
V O C:	5.5 lbs/MMcf =	<u>4.818</u> tons/yr
C O:	84.0 lb/MMcf =	<u>73.584</u> tons/yr

**Dryer Burner (#2 oil)**

>100 MMBtu/hr

The following calculations determine the amount of emissions created by #2 & #1 distillate

fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>0.0 MMBtu/hr * 8760 hrs/yr</u>	<u>* Ef (lbs/1000 gal) = (tons/yr)</u>
	138000.0 Btu/gal * 2000 lbs/ton	

<div> <div>If Rating &gt;100 mmB</div> <div> <div>N O x:</div> <div>24.0</div> </div> <div> <div>V O C:</div> <div>0.20</div> </div> </div>	P M:	2.0 lbs/1000 gal =	<u>0.000</u> tons/yr
	PM-10:	3.3 lbs/1000 gal =	<u>0.000</u> tons/yr
	S O x:	71.0 lbs/1000 gal =	<u>0.000</u> tons/yr
	N O x:	24.0 lbs/1000 gal =	<u>0.000</u> tons/yr
	V O C:	0.20 lbs/1000 gal =	<u>0.000</u> tons/yr
	C O:	5.0 lbs/1000 gal =	<u>0.000</u> tons/yr

### Dryer Burner (#4 oil/ <100MMBTU)

The following calculations determine the amount of emissions created by #4 distillate

fuel oil @ 0.5 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>0.000</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>138000.0</u> Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>0.000</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	71.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	20.0 lbs/1000 gal =	<u>0.000</u> tons/yr
V O C:	0.34 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.000</u> tons/yr

### Dryer Burner (#4 oil/ >100MMBTU)

The following calculations determine the amount of emissions created by #4 distillate

fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42, Tables 1.3-1, 1.3-2, 1.3-3

Pollutant:	<u>0.0</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>138000.0</u> Btu/gal * 2000 lbs/ton	
P M:	2.0 lbs/1000 gal =	<u>0.000</u> tons/yr
PM-10:	3.3 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	75.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	24.0 lbs/1000 gal =	<u>0.000</u> tons/yr
V O C:	0.20 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	5.0 lbs/1000 gal =	<u>0.000</u> tons/yr

### Dryer Burner (waste oil/ vaporizing burner)

The following calculations determine the amount of emissions created by waste

fuel oil @ 0.500 % sulfur, based on 8760 hours of use and AP-42, Chapter 1.11

<u>0.000</u>	% Ash
<u>0.000</u>	% Lead

Pollutant:	<u>0.0</u> MMBtu/hr * 8760 hrs/yr	* Ef (lbs/1000 gal) = (tons/yr)
	<u>0.0</u> Btu/gal * 2000 lbs/ton	
P M:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
P M-10:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	50.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	11.0 lbs/1000 gal =	<u>0.000</u> tons/yr
VOC	1.0 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	1.7 lbs/1000 gal =	<u>0.000</u> tons/yr
Pb:	0.0 lbs/1000 gal =	<u>0.000</u> tons/yr

**Dryer Burner (waste oil/atomizing burner)**

The following calculations determine the amount of emissions created by waste

fuel oil @ 1.000 % sulfur, based on 8760 hours of use and AP-42 Chapter 1.111.000

% Ash

0.010

% Lead

Pollutant: 0.000 MMBtu/hr \* 8760 hrs/yr \* Ef (lbs/1000 gal) = (tons/yr)  
142000.000 Btu/gal \* 2000 lbs/ton

P M:	66.0 lbs/1000 gal =	<u>0.000</u> tons/yr
P M-10:	57.0 lbs/1000 gal =	<u>0.000</u> tons/yr
S O x:	107.0 lbs/1000 gal =	<u>0.000</u> tons/yr
N O x:	16.0 lbs/1000 gal =	<u>0.000</u> tons/yr
VOC:	1.0 lbs/1000 gal =	<u>0.000</u> tons/yr
C O:	2.10 lbs/1000 gal =	<u>0.000</u> tons/yr
Pb:	0.50 lbs/1000 gal =	<u>0.000</u> tons/yr

**Dryer Burner (butane)**

The following calculations determine the amount of emissions created by butane

gas @ 0.18 grains sulfur per 100 cubic feet, based on 8760 hours of use and AP-42, Table 1.5-1

Pollutant: 200.000 MMBtu/hr \* 8760 hrs/yr \* Ef (lbs/1000 gal) = (tons/yr)  
102000.0 Btu/gal \* 2000 lbs/ton

P M:	0.6 lbs/1000 gal =	<u>5.153</u> tons/yr
PM-10:	0.6 lbs/1000 gal =	<u>5.153</u> tons/yr
S O x:	0.02 lbs/1000 gal =	<u>0.139</u> tons/yr
N O x:	21.0 lbs/1000 gal =	<u>180.353</u> tons/yr
V O C:	0.26 lbs/1000 gal =	<u>2.233</u> tons/yr
C O:	3.6 lbs/1000 gal =	<u>30.918</u> tons/yr

**Dryer Burner (propane)**

The following calculations determine the amount of emissions created by propane

gas @ 0.20 grains sulfur per 100 cubic feet, based on 8760 hours of use and AP-42, Table 1.5-1

Pollutant: 200.000 MMBtu/hr \* 8760 hrs/yr \* Ef (lbs/1000 gal) = (tons/yr)  
91500.0 Btu/gal \* 2000 lbs/ton

P M:	0.6 lbs/1000 gal =	<u>5.744</u> tons/yr
PM-10:	0.6 lbs/1000 gal =	<u>5.744</u> tons/yr
S O x:	0.02 lbs/1000 gal =	<u>0.191</u> tons/yr
N O x:	19.0 lbs/1000 gal =	<u>181.902</u> tons/yr
V O C:	0.25 lbs/1000 gal =	<u>2.393</u> tons/yr
C O:	3.2 lbs/1000 gal =	<u>30.636</u> tons/yr

**\*\* aggregate drying: drum-mix plant \*\***

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and AP-42, Chapter 11.1, Table 11.1-3, rev. 12/00

P M:	28 lbs/ton x	<u>600.0</u>	tons/hr x	8760 hrs/yr =	<u>73584.000</u>	tons/yr
		2000	lbs/ton			
P M-10:	6.5 lbs/ton x	<u>600</u>	tons/hr x	8760 hrs/yr =	<u>17082.000</u>	tons/yr
		2000	lbs/ton			
Lead:	3.30E-06 lbs/ton x	<u>600</u>	tons/hr x	8760 hrs/yr =	<u>0.009</u>	tons/yr
		2000	lbs/ton			
HAPs:	0.0076 lbs/ton x	<u>600</u>	tons/hr x	8760 hrs/yr =	<u>19.973</u>	tons/yr
		2000	lbs/ton			

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

**\*\* aggregate drying: batch-mix plant \*\***

The following calculations determine the amount of emissions created by aggregate drying, based on 8760 hours of use and EPA SCC #3-05-002-05:

P M:	32 lbs/ton x	<u>0.0</u>	tons/hr x	8760 hrs/yr =	<u>0.0</u>	tons/yr
		2000	lbs/ton			
P M-10:	4.5 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.0</u>	tons/yr
		2000	lbs/ton			
Lead:	3.30E-06 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u>	tons/yr
		2000	lbs/ton			
HAPs:	0.0076 lbs/ton x	<u>0</u>	tons/hr x	8760 hrs/yr =	<u>0.000</u>	tons/yr
		2000	lbs/ton			

HAPs include benzene, ethylbenzene, formaldehyde, methyl chloroform, naphthalene, toluene, xylene; arsenic, cadmium, chromium, manganese, mercury, and nickel compounds.

**\*\* conveying / handling \*\***

The following calculations determine the amount of emissions created by material handling of aggregate, based on 8760 hours of use and AP-42, Ch 11.19.2

$$E_f = .0032^* \frac{(U/5)^{1.3}}{(M/2)^{1.4}} * k = \underline{\underline{0.003}} \text{ lbs/ton}$$

where k= 1 (particle size multiplier)  
U = 12 mph mean wind speed (worst case)  
M = 5.0 % moisture

$$P M : \underline{\underline{0.003}} \text{ lbs/ton x } \underline{\underline{570.00}} \text{ tons/hr x } \frac{8760 \text{ hrs/yr}}{2000 \text{ lbs/ton}} = \underline{\underline{6.913}} \text{ tons/yr}$$

$$P M-10: 10\% \text{ of PM} = \underline{\underline{0.691}} \text{ tons/yr}$$

$$\text{Screening PM: } \underline{\underline{600.00}} \text{ tons/hr x } 0.0315 \text{ lbs/ton} / 2000 \text{ lbs/ton x } 8760 \text{ hrs/yr} = \underline{\underline{82.782}} \text{ tons/yr} \quad \text{AP-42 Ch.11.19.2}$$

$$P M-10: 10\% \text{ of PM} = \underline{\underline{8.278}} \text{ tons/yr}$$

$$\text{Limited Screening PM: } 0.0315 \text{ lbs/ton x } 1,000,000 \text{ tons/yr} / 2000 \text{ lbs/ton} = \underline{\underline{15.75}} \text{ tons/yr}$$

$$P M-10: 10\% \text{ of PM} = \underline{\underline{1.58}} \text{ tons/yr}$$

1,000,000 ton per year annual throughput limit

**\*\* unpaved roads \*\***

The following calculations determine the amount of emissions created by vehicle traffic on unpaved roads, based on 8760 hours of use and AP-42, Ch 13.2.2.

**A. Tri-axle Truck**

<u>7.25</u> trips/hr x				
<u>0.220</u> miles/roundtrip x				
8760 hrs/yr =			<u>13972.2</u> miles per year	
<b>For PM</b>	<b>For PM-10</b>			
	$E_f = \{k^*[(s/12)^{0.8}][(W/3)^b]/[(Mdry/0.2)^c] * [(365-p)/365] * (S/15)$			
5.57	= 1.19 lb/mile			
10	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)			
4.8	s = 4.8 mean % silt content of unpaved roads			
0.5	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)			
0.4	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)			
21	W = 21 tons average vehicle weight			
0.2	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)			
125	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)			
10	S = 10 miles/hr vehicle speed			
<u>5.57</u> lb/mi x		<u>13972.2</u> mi/yr =	PM	<u>38.93</u> tons/yr
2000 lb/ton				
<u>1.19</u> lb/mi x		<u>13972.2</u> mi/yr =	PM-10	<u>8.33</u> tons/yr
2000 lb/ton				

**B. Front End Loader**

<u>70.36</u> trips/hr x				
<u>0.100</u> miles/roundtrip x				
8760 hrs/yr =			<u>61635.4</u> miles per year	
<b>For PM</b>	<b>For PM-10</b>			
	$E_f = \{k^*[(s/12)^{0.8}][(W/3)^b]/[(Mdry/0.2)^c] * [(365-p)/365] * (S/15)$			
6.43	= 1.46 lb/mile			
10	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)			
4.8	s = 4.8 mean % silt content of unpaved roads			
0.5	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)			
0.4	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)			
28	W = 35 tons average vehicle weight			
0.2	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)			
125	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)			
10	S = 10 miles/hr vehicle speed			
<u>6.43</u> lb/mi x		<u>61635.36</u> mi/yr =	PM	<u>198.29</u> tons/yr
2000 lb/ton				
<u>1.46</u> lb/mi x		<u>61635.36</u> mi/yr =	PM-10	<u>45.08</u> tons/yr
2000 lb/ton				

**C. Semi Truck**

<u>10.2</u> trips/hr x				
<u>0.220</u> miles/roundtrip x				
8760 hrs/yr =			<u>19618.9</u> miles per year	
<b>For PM</b>	<b>For PM-10</b>			
	$E_f = \{k^*[(s/12)^{0.8}][(W/3)^b]/[(Mdry/0.2)^c] * [(365-p)/365] * (S/15)$			
6.14	= 1.34 lb/mile			
10	where k = 2.6 (particle size multiplier for PM-10) (k=10 for PM-30 or TSP)			
4.8	s = 4.8 mean % silt content of unpaved roads			
0.5	b = 0.4 Constant for PM-10 (b = 0.5 for PM-30 or TSP)			
0.4	c = 0.3 Constant for PM-10 (c = 0.4 for PM-30 or TSP)			
25.5	W = 28.0 tons average vehicle weight			
0.2	Mdry = 0.2 surface material moisture content, % (default is 0.2 for dry conditions)			
125	p = 125 number of days with at least 0.254mm of precipitation (See Figure 13.2.2-1)			
10	S = 10 miles/hr vehicle speed			

	6.14 lb/mi x	19618.896 mi/yr =	PM	<u>60.23</u> tons/yr
		2000 lb/ton		
	1.34 lb/mi x	19618.896 mi/yr =	PM-10	<u>13.13</u> tons/yr
		2000 lb/ton		
All Trucking	Total PM:	<u>297.45</u> tons/yr		
	Total PM-10:	<u>66.54</u> tons/yr		

**\*\* storage \*\***

The following calculations determine the amount of emissions created by wind erosion of storage stockpiles, based on 8760 hours of use and AP-42, Ch 11.2.3.

Ef = 1.7*(s/1.5)*(365-p)/235*(f/15)				
=	1.74	lbs/acre/day	for sand	
=	1.16	lbs/acre/day	for stone	
=	1.16	lbs/acre/day	for slag	
=	1.16	lbs/acre/day	for gravel	
=	1.16	lbs/acre/day	for RAP	
where s =	1.5	% silt	for sand	
s =	1.0	% silt	of stone	
s =	1.0	% silt	of slag	
s =	1.0	% silt	of gravel	
s =	1.0	% silt	for RAP	
p =	125	days of rain	greater than or equal to 0.01 inches	
f =	15	% of wind	greater than or equal to 12 mph	
Ep (storage) = Ef * sc * (20 cuft/ton) * (365 days/yr)				
	(2000 lbs/ton)*(43560 sqft/acre)*(25 ft)			
=	0.204	tons/yr	for sand	
=	0.272	tons/yr	for stone	
=	0.233	tons/yr	for slag	
=	0.252	tons/yr	for gravel	
=	0.175	tons/yr	for RAP	
Total PM:	<u>1.135</u>	tons/yr		
where sc = <u>35</u> ,000 tons storage capacity for sand				
sc =	<u>70</u>	,000 tons storage capacity	for stone	
sc =	<u>60</u>	,000 tons storage capacity	for slag	
sc =	<u>65</u>	,000 tons storage capacity	for gravel	
sc =	<u>45</u>	,000 tons storage capacity	for RAP	
P M-10:	35% of PM =	<u>0.071</u>	tons/yr	for sand
	35% of PM =	<u>0.095</u>	tons/yr	for stone
	35% of PM =	<u>0.081</u>	tons/yr	for slag
	35% of PM =	<u>0.088</u>	tons/yr	for gravel
	35% of PM =	<u>0.061</u>	tons/yr	for RAP
Total PM-10:		<u>0.397</u>	tons/yr	



Emissions before controls (combustion plus production) are as follows:

natural gas		#2 oil		#4 oil		waste oil	
P M:	<b>73974</b> tons/yr	P M:	<b>N/A</b> tons/yr	P M:	<b>N/A</b> tons/yr	P M:	<b>N/A</b> tons/yr
P M-10:	<b>17165</b> tons/yr	P M-10:	<b>N/A</b> tons/yr	P M-10:	<b>N/A</b> tons/yr	P M-10:	<b>N/A</b> tons/yr
S O x:	<b>10.12</b> tons/yr	S O x:	<b>N/A</b> tons/yr	S O x:	<b>N/A</b> tons/yr	S O x:	<b>N/A</b> tons/yr
N O x:	<b>125.49</b> tons/yr	N O x:	<b>N/A</b> tons/yr	N O x:	<b>N/A</b> tons/yr	N O x:	<b>N/A</b> tons/yr
V O C:	<b>5.21</b> tons/yr	V O C:	<b>N/A</b> tons/yr	V O C:	<b>N/A</b> tons/yr	V O C:	<b>N/A</b> tons/yr
C O:	<b>75.15</b> tons/yr	C O:	<b>N/A</b> tons/yr	C O:	<b>N/A</b> tons/yr	C O:	<b>N/A</b> tons/yr
Lead:	<b>0.009</b> tons/yr	Lead:	<b>N/A</b> tons/yr	Lead:	<b>N/A</b> tons/yr	Lead:	<b>N/A</b> tons/yr
HAPs:	<b>19.97</b> tons/yr	HAPs:	<b>N/A</b> tons/yr	HAPs:	<b>N/A</b> tons/yr	HAPs:	<b>N/A</b> tons/yr

  

butane		propane	
P M:	<b>73978</b> tons/yr	P M:	<b>73978</b> tons/yr
P M-10:	<b>17163</b> tons/yr	P M-10:	<b>17164</b> tons/yr
S O x:	<b>9.73</b> tons/yr	S O x:	<b>9.78</b> tons/yr
N O x:	<b>183.21</b> tons/yr	N O x:	<b>184.75</b> tons/yr
V O C:	<b>2.62</b> tons/yr	V O C:	<b>2.78</b> tons/yr
C O:	<b>32.48</b> tons/yr	C O:	<b>32.20</b> tons/yr
Lead:	<b>0.009</b> tons/yr	Lead:	<b>0.009</b> tons/yr
HAPs:	<b>19.97</b> tons/yr	HAPs:	<b>19.97</b> tons/yr

## B. Source emissions after controls

### dryer combustion: gas

P M:	1.66 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.002</b> tons/yr
P M-10:	6.66 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.007</b> tons/yr

### dryer combustion: #2 oil

P M:	0.00 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.000</b> tons/yr
P M-10:	0.00 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.000</b> tons/yr

### hot oil heater combustion: gas

P M:	0.035 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.035</b> tons/yr
P M-10:	0.142 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.142</b> tons/yr

### hot oil heater combustion: #2 oil

P M:	0.270 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.270</b> tons/yr
P M-10:	0.446 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.446</b> tons/yr

### hot oil heater combustion: butane

P M:	0.000 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.000</b> tons/yr
P M-10:	0.000 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.000</b> tons/yr

### hot oil heater combustion: propane

P M:	0.081 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.081</b> tons/yr
P M-10:	0.081 tons/yr x	<b>1.00000</b> emitted after controls =	<b>0.081</b> tons/yr

### dryer combustion: #4 oil

P M:	0.00 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.000</b> tons/yr
P M-10:	0.00 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.000</b> tons/yr

### dryer combustion: waste oil

P M:	0.00 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.000</b> tons/yr
P M-10:	0.00 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.000</b> tons/yr

### dryer combustion: butane

P M:	5.15 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.005</b> tons/yr
P M-10:	5.15 tons/yr x	<b>0.00100</b> emitted after controls =	<b>0.005</b> tons/yr

**dryer combustion: propane**

P M:	5.74 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.006</u> tons/yr
P M-10:	5.74 tons/yr x	<u>0.00100</u> emitted after controls =	<u>0.006</u> tons/yr

**aggregate drying:**

P M:	73584.00 tons/yr x	<u>0.00100</u> emitted after controls =	<u>73.584</u> tons/yr
P M-10:	17082.00 tons/yr x	<u>0.00100</u> emitted after controls =	<u>17.082</u> tons/yr

**conveying/handling:**

P M:	6.91 tons/yr x	<u>1.000</u> emitted after controls =	<u>6.913</u> tons/yr
P M-10:	0.69 tons/yr x	<u>1.000</u> emitted after controls =	<u>0.691</u> tons/yr

**screening**

P M:	82.78 tons/yr x	<u>1.000</u> emitted after controls =	<u>82.782</u> tons/yr
P M-10:	8.28 tons/yr x	<u>1.000</u> emitted after controls =	<u>8.278</u> tons/yr

**unpaved roads:**

P M:	297.45 tons/yr x	50.00% emitted after controls =	<u>148.723</u> tons/yr
P M-10:	66.54 tons/yr x	50.00% emitted after controls =	<u>33.271</u> tons/yr

**storage:**

P M:	1.135 tons/yr x	50.00% emitted after controls =	<u>0.567</u> tons/yr
P M-10:	0.397 tons/yr x	50.00% emitted after controls =	<u>0.199</u> tons/yr

Emissions after controls (combustion plus production) are as follows:

	Butane	Propane	Gas	#2 Oil	
P M:	<u>312.84</u>	<u>312.85</u>	<u>312.84</u>	<u>312.84</u>	tons/yr
P M-10:	<u>59.97</u>	<u>59.97</u>	<u>59.97</u>	<u>59.97</u>	tons/yr

**II. Allowable Emissions**

A. The following calculations determine compliance with 326 IAC 6-1-2(a), which limits stack emissions from this plant to 0.03 gr/dscf:

$$\begin{array}{l}
 \frac{0.03 \text{ grains}^*}{\text{dscf}} \times \frac{119086.000 \text{ acfm}^*}{460} + \frac{528}{250} \text{ Temp}^* \times \frac{100}{100} - \frac{5 \% \text{ moisture}^*}{100} \\
 \frac{525600 \text{ minutes}^*}{\text{year}} \times \frac{1}{7000 \text{ grains}} \times \frac{1 \text{ ton}}{2000 \text{ lbs}} = \underline{94.756 \text{ tons/yr}}
 \end{array}$$

To meet 326 IAC 6-1-2(a), the following value must be less than the amount calculated above: 73.86 tons/yr

B. The following calculations determine the maximum sulfur content of distillate #2 fuel oil allowable by 326 IAC 7:

$$\begin{array}{l}
 \text{limit: } 0.5 \text{ lbs/MMBtu} \\
 0.5 \text{ lbs/MMBtu} \times \frac{138000.0 \text{ Btu/gal}}{69 \text{ lbs/1000gal}} = \frac{69.0 \text{ lbs/1000gal}}{142.0 \text{ lb/1000 gal}} = \underline{0.486}
 \end{array}$$

Sulfur content must be less than or equal to 0.486 % to comply with 326 IAC 7  
and to limit SO<sub>2</sub> emissions to 99 tons per year or less.

### III. Limited Potential Emissions

#### FUEL USAGE LIMITATION: BASED ON NOx

##### FUEL USAGE LIMITATION FOR BURNER (Natural Gas)

$$\begin{array}{rclclcl} 122.64 \text{ tons NOx} & * & 2000 \text{ lbs} & = & 245280 \text{ lbs NOx} \\ \text{year} & & \text{ton} & & \text{year} \\ \\ 245280 \text{ lbs NOx} & / & 140.0 \text{ lbs NOx} & = & 1752.00 \text{ MMcf} \\ \text{year} & & \text{MMcf} & & \text{year} \\ \\ 1752.00 \text{ MMcf} & * & \frac{97.15 \text{ tons/yr}}{122.64 \text{ tons/yr}} & = & 1387.86 \text{ MMcf} \text{ FESOP Limit} \\ \text{year} & & & & \text{year} \end{array}$$

##### FUEL USAGE LIMITATION FOR BURNER (Butane)

$$\begin{array}{rclclcl} 180.35 \text{ tons NOx} & * & 2000 \text{ lbs} & = & 360706.00 \text{ lbs NOx} \\ \text{year} & & \text{ton} & & \text{year} \\ \\ 360706.00 \text{ lbs NOx} & / & 21.0 \text{ lbs} & = & 17176.48 \text{ kgal} \\ \text{year} & & 1000 \text{ gal} & & \text{year} \\ \\ 17176.48 \text{ kgal} & * & \frac{97.15 \text{ tons/yr}}{180.35 \text{ tons/yr}} & = & 9252.4 \text{ kgal} \text{ FESOP Limit} \\ \text{year} & & & & \text{year} \end{array}$$

##### FUEL USAGE LIMITATION FOR BURNER (Propane)

$$\begin{array}{rclclcl} 181.902 \text{ tons NOx} & * & 2000 \text{ lbs} & = & 363803.28 \text{ lbs NOx} \\ \text{year} & & \text{ton} & & \text{year} \\ \\ 363803.28 \text{ lbs NOx} & / & 19.0 \text{ lbs} & = & 19147.54 \text{ kgal} \\ \text{year} & & 1000 \text{ gal} & & \text{year} \\ \\ 19147.54 \text{ kgal} & * & \frac{97.15 \text{ tons/yr}}{181.902 \text{ tons/yr}} & = & 10226.3 \text{ kgal} \text{ FESOP Limit} \\ \text{year} & & & & \text{year} \end{array}$$

#### LIQUID BINDER USAGE LIMITATION: BASED ON VOC EMISSIONS FROM CUTBACK ASPHALT

Assume 95% evaporative loss of diluent.

Percent diluent in liquid binder                      5%  
Average Density Diluent =                      5.84 lbs/gal                      Average Density of Asphalt Cement =                      9.18 lbs/gal

The FESOP VOC emission limit of 25 tons per year minus the worst case sum of emissions from combustion and production = **20.8 tons/yr**

Limited tons of liquid binder = (limited VOC emission rate/95%)/density of diluent \* 2,000 lbs/ton \*(density of diluent + ((1 - %diluent)/%diluent) \* density of asphalt cement) / 2000 lbs/ton)

**LIQUID BINDER USAGE LIMITATION = 675.8 tons/yr**